



**azcentral**

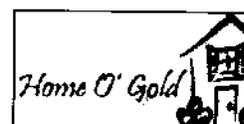
 **PRINT THIS**

Sponsored by 

## Fish fight

Saving chub must be more than just killing trout

Jan. 19, 2003



Along the Colorado River through the Grand Canyon a fish fight is under way. It pits plentiful trout against the endangered humpback chub in the cold, clear waters downstream from Glen Canyon Dam.

Everyone should root for the chub, an ugly fish with a pronounced dorsal hump, a narrow flattened head and small eyes, endemic to the Colorado River Basin dating from about 4000 B.C.

Two years worth of experiments began this month. They're designed to improve the chub's chances of recovery in a habitat that's been altered significantly - not so much by the trout but by the presence of the dam, built in 1963.

Where once the mighty Colorado was a churning, muddy flow that roared with snowmelt in the springtime but by summertime had slowed, gradually warming to temperatures suitable for swimming, today its flows are lower and more constant.

It's a habitat in which the trout thrive - calm, cold and clear water - but which is anathema to the chub, which like the water warm and muddy.

The experiments are small steps - important steps - in finding ways to let the chub and Glen Canyon Dam, a valuable asset to the region's economy, co-exist. The task is daunting, a point underscored by Steve Gloss, the lead biologist at the Grand Canyon Monitoring and Research Center, who says, "Trying to put the river back to the way it was is next to impossible."

Think of the experiments as a surgical strike at the trout. Scientists will vary dam releases during the trout breeding season of January to March to disrupt trout spawning. They also plan to kill 30,000 non-native brown and rainbow trout each year along a nine-mile stretch of the river that takes in the confluence of the Little Colorado River.

Fish will be stunned with electro-fishing techniques, captured in nets and then euthanized, with their remains used as garden fertilizer by the Hualapai Tribe. Any chub caught in the sweep will be catalogued and returned to the river.

Why the confluence of the Little Colorado River? Because this tributary is warm and that's where the dominant population of the chub are, clinging to life. Their population has dwindled to about 1,100 adults - a precipitous drop in the last decade that scientists attribute to less turbidity in the river. These

steady flows also have increased the number of trout at the confluence, where scientists believe they prey on the young chub.

The aim of the experiments is commendable: to thin the trout population to lessen their predation on the native species and allow trout left in the river to grow larger, benefiting anglers in search of a trophy.

But let's not delude ourselves. If all works as envisioned it'll be minimal progress. Plucking 60,000 trout out of the river, at a cost of \$650,000 per year, probably won't ensure the survival of the chub.

That's why discussions by the work group of the Adaptive Management Program - all the stakeholders, from utility representatives to Native Americans, from federal agencies to environmental groups - must continue.

Ideas under consideration to help the chub include warming the temperature of water releases, injecting more sediment into dam flows, using a weir to catch brown trout at Bright Angel Creek and placing young chub in a hatchery until they're old enough to be released.

"It's not a single silver bullet that will solve the problem of the declining native chub," says the Bureau of Reclamation's Randy Peterson, manager of the Adaptive Management Program.

Removing the trout and disrupting their spawning season is low risk and relatively inexpensive compared, for example, to water temperature modification at the dam, a costly idea which could run as high as \$50 million.

We believe another aspect of the current experiment holds special promise. Scientists will transplant chub to above Atomizer Falls, a reach of the Little Colorado River where there are currently none. If it works, other tributaries might become a natural refuge, too.

Let there be no mistake: The values and resources of the incomparable Grand Canyon ecosystem deserve maximum protection.

These experiments are sensible tools to assess conditions, add to the knowledge base and - let us hope - serve as a catalyst for more studies that, in time, will restore the health of the Grand Canyon.

**Find this article at:**

<http://www.arizonarepublic.com/opinions/articles/0119sun1-19.html>

Check the box to include the list of links referenced in the article.

